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Cultural values impact on risk perceptions a comparison of cultural indexes and risk premium

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CUTURAL VALUES IMPACT ON RISK PERCEPTIONS: A COMPARISON OF CULTURAL INDEXES AND RISK PREMIUM

by

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ABSTRACT

This paper examines how cultural values influence risk premium across the world. Cultural values are measured by four cultural indexes, power distance, uncertainty avoidance index, masculinity index, and individualism index, established by Geert Hofstede. Our methodology determines the risk premium by using the Dividend Discount Model, and then computes the regression analysis of each index's impact on average risk premiums. After analyzing 31 countries, results show the only statistically significant correlation found was between the individualism index and risk premium. The higher the individualistic nature of the culture was the higher the risk premium. This is attributed to the overconfidence and self-attribution biases found in investors with high individualism index.

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INTRODUCTION

Thaler writes of behavioral finance as an "open-minded finance", because it recognizes investors in the market behave less than rational all the times (Thaler, 1980). Behavioral finance attempts to explain how security selection is psychologically influenced, by alterations of risk and return perceptions. It is problematic to measure an irrational, unpredictable bias error, unless there is a pattern to the irrationality. Fortunately, previous studies show the existence of bounded rationality, "Investors' deviations from the maxims of economic rationality turn out to be highly pervasive and systematic" (Sheifer, 2000). Bounded rationality concepts, the rationality of irrational decisions, allow behavior financial models to exist (De Bondt et al, 2008).

By allowing emotions, values, and biases to influence the risk and return suitability, investors can seriously harm their wealth. As Kahneman and Pipe note, "Investors who are prone to these biases will take risks that they do not acknowledge, experience outcomes that they did not anticipate, and will be prone to unjustified trading, and may end up blaming themselves or others when outcomes are bad" (Kahneman & Pipe, 1998). It's important to understand the psychological basis for investor biases, because correcting them could possibly lead to superior investing results. Paul Slovic writes, "a full understanding of human limitation will ultimately benefit the decision-maker more than will naïve faith in the infallibity of his intellect" (Slovic, 1972).

Numerous scholars attempt to explain the psychological influences on growth, stock prices, and stock returns. Cochrane (2005) attempts to explain the differences in risk and return through his model, Behavioral SDF Based Asset grounded on sentiment, "erroneous beliefs

about future cash flows and risks." Alternatively, Cecchetti et al (2000) and Abel (2002) attempt to justify sentiment error by pessimism (Shefrina, 2008). "Culture's Influence on Risk Premium" attempts to prove that cultural values roots investor biases that have a significant influence on risk premium, the perception of the added returns you will gain for the additional risk. Jianbiao et al. (2009) thesis furthermore supports that "research on cultural values affect on risk vs. return perceptions can help us grasp the investment rule of investors and improve the effectiveness of decision making of the relevant countries."

LITERARY REVIEW

Geert Hofstede

There are numerous definitions of culture, for the purpose of the thesis we will use Hofstede's operating definition, "The collective programming of the mind that distinguishes one group or category of people from another" (Hofstede, 1980). Hofstede's definition emphasizes three main points: a) culture is collective attribute, not individual, b) culture is applicable to the majority of the population but not precise for all, c) culture is manifested in collective behaviors, not directly visible.

Sociologists have formed numerous theories attempting to measure a country's culture. Examples of multidimensional theoretical models are those by Aberle, Cohen, Davis, Levy, and Sutton (1950), who generated nine "functional pre- requisites of a society"; by Kluckhohn and Strodtbeck (1961) produced five "value orientations"; by Parsons and Shils (1951) created five "pattern variables"; and by Douglas (1973) with his theory of two "cosmologies." These multidimensional classifications struggle to organize a complex reality, they have no clear application of the levels of analysis and their theories have not been supported by empirical research at modern societal levels.

Raymond B. Cattell was the first psychologist who attempted to determine dimensions of culture at the society level with empirical research. Cattell analyzed more than 48 country-level variables for over 40 countries. His variables consisted of a variety of data sets: geographical and demographic data, races of inhabitants, historical and political aspects, social, legal, and religious indicators, economical, medical, and "elite" (Cattell, 1979). He segmented the groups by "syntality," a concept parallel to the "personality" of individuals, and then proceeded to discover

dimensionalities. Cattell's 12 factors aren't used because they are difficult to interpret and apply (Hofstede & McCrae, 2004). Many critics believe his factors only reflect the economic development of the country.

From Cattel's theory comes the next revolutionary discovery of cultural values. Between 1967 and 1973, Geert Hofstede and IBM conducted a total of 117,000 questionnaires of IBM employee attitude surveys in 71 countries. The objective of the surveys was to capture the employee's basic values and their situational attitudes. IBM was able to differentiate these cultural traits because their strict structured organization, with identical set of merchandises, products related jobs and strong corporate culture, allowed samples to be similar in all aspects aside from nationality. The questionnaires were dispensed in over 20 languages. To eliminate short-term effects, the database contained the results of two consecutive surveys four years apart (Hofstede, 1980a).

From IBM's original survey questions, Geert Hofstede was successfully able to correlate results and identify the four cultural dimensions: Power Distance, Uncertainty Avoidance, Individualism, and Masculinity.

Power distance is the magnitude of the acceptability of power inequality from those in the lower power structure. Hofstede describes power distance as "the extent to which the less powerful members of organizations and institutions (such as the family) accept and expect that power is distributed unequally" (Hofstede, 2001). It proposes that the followers, just as much as by the leaders, endorse the inequality level of society. Alternatively, it's the degree to which subordinates will or will not express their opinions to their superiors, and the superior's lack of

consideration of the subordinates' ideas in the decision making process. Power and inequality are extremely fundamental factors of any society, in order to understand sociably acceptable international interactions by country. The power distance level is bred through generations by the children's learning of obedience and initiative.

The second dimension is uncertainty avoidance. It deals with a society's tolerance for vagueness. It indicates the level of the citizen's comfort in unstructured situations. Unstructured situations are defined as "novel, unknown, surprising, and different than usual" (Hofstede, 2001). Cultures with high levels of uncertainty avoidance attempt to reduce the probability of encountering surprise by living in societies with high safety and security measures, strict laws and rules, and, on religious and philosophical issues, a faith in an absolute Truth: "There can only be one Truth and we have it." Uncertainty-avoiding societies are more emotional. The opposite societies with uncertainty-accepting styles, are more open minded and accepting of different views; they have believe the fewer rules the better, and their religious and philosophical views are relativist and allow different beliefs and faith to co-exist side by side. Uncertainty accepting cultures are more phlegmatic and introspective, and are expected by their peers to suppress emotions.

Individualism versus collectivism refers to the extent at which country's citizens would rather act as an individual rather than members of groups. In individualist societies, the citizen is expected to take care of himself or herself and his or her immediate family. In collectivist cultures, the member is usually educated to take care of himself and his extended family. Protecting the extended family with absolute loyalty. Hofstede points out the word collectivism

has no political implications; it has no ties with the state, only the specific group in question (Hofstede, 2001).

The fourth Hofstede dimension is masculinity versus femininity. It refers to the type of dominant values of society, feministic or masculine. Feministic cultures value "friendly atmosphere, position security, physical conditions, [and] cooperation" (Hofstede, 2001). Masculinity dominated cultures have the opposing values, "the degree to which values like assertiveness, performance, success and competition . . . prevail over values like the quality of life, maintaining warm personal relationships, care for the weak, and solidarity" (Hofstede, 2001). Hofstede mentions in his cross-cultural reference that, "The IBM studies also revealed that (a) women's values differ less among societies than men's values; and (b) men's values vary along a dimension from very assertive and competitive and are most different from women's values on one side to modest and caring and similar to women's values on the other" (Hofstede & McCrae, 2004).

The four Hofstede cultural values listed above will be our main variables compared to risk premiums, in order to find any correlations between the values and perceptions of risk and return.

Risk Premium

The tradeoff between rate of return and risk is a conceptual issue. While attempting to discover the best way to measure risk premiums, I've found that there are two different classifications of theories according to Fama (1970). The risk premium theories according to fundamental investors, which incorporate little friction, and the theories based on frictions. Fundamental theories are then subdivided into macroeconomic theories, tying micro/macro quantity data, behavioral theories, concentrating on irrational behaviors, and finance theory, ties to price data. The friction determined risk premium theories are sub classified into segmented markets intermediated markets, and liquidity basis (Crochane, 2011).

METHODOLOGY

Geert Hofstede

The literature search was designed to find the best classifications of culture values in order to compare the researched group values with the countries' risk premium. The best possible candidates were as follows.

The best cultural dimension data available is Geert Hofstede data. Hofstede's "Culture's Consequence" provides clear definitions and supported empirical research to societal values making his culture factors the best variable for country measures. Within the first fourteen years of publication, "Culture's Consequence" was cited over 834 times in over 158 different journals. Similarly simplistic ideologies were used when determining an appropriate risk premium formula for the purposes of strengthening the correlations relevance (Hofstede, 1995).

Risk Premium

The two most efficiently basic financial models for asset pricing and rate of return formulas are Capital Asset Pricing Model and the Dividend Discount Model.

One of the most important contributions to the modern capital market theory is Sharpe-Lintner-Mossin mean-variance equilibrium model of exchange, otherwise known as the capital asset pricing model (Fama, 2006). The CAPM model has been the basis for hundreds of academic papers and is a prevalent formula used by veteran firms in the evaluation of the cost of

equity capital (Sharpe 1964, Lintner (1965), and Mossin (1966). CAPM determines the theoretically appropriate rate of return by the following formula:

$$E(R_i)= Rf + B\ (E(R_m)-Rf)$$

Where E(Ri) is the expected return on the asset, Rf is the risk-free rate of interest, B is the Beta, known as the sensitivity of the expected asset returns to the excess market returns, and Rm is the expected rate of return for the market. The difference between the Rm and the Rf is the risk premium.

An alternative approach to the cost of equity incorporates dividends and growth rate to find net present value of cash flows; it is commonly called Dividend Discount Model (DDM). The DDM is widely used among financial corporations, such as Merrill Lynch use of DDM as a constituent of its market-beating Alpha Surprise Model or JP Morgan use as an essential factor of the valuation and stock selection process. There are two Dividend Discount Models, The Gordon Model with constant growth, and the two-growth model for the stable and non-stable periods. The method of obtaining growth rates will consist of splitting the countries yearly and calculating their risk premium detachedly, in turn there is no need to use the two-stage growth model (Arnold, 2005).

The Gordon growth model is a modified version of discounted cash flow model formulated as:

$$P= D \quad \frac{1+g}{k-g} \quad x$$

Where P is the value of the price, “g” is the constant growth rate, K is the required rate of return of the stock, and D is the dividend payout.

By readjusting the formula to allow rate of return to be the solution, we get:

$$K \quad \frac{D \times (1+g)}{P} \quad = \quad + g$$

Instead of choosing between formulas to calculate the Risk Premium, the new equation incorporates the CAPM model into the Gordon’s Growth Model by substituting k with the simplified CAPM model of k= RF + RP, providing a better risk premium model (De Bondt, 2008):

$$P = \quad \frac{D\ (1+g)}{(RF+RP-g)}$$

Where P is price of the asset, G is constant growth, RF is the risk-free rate, and RP is the risk premium.

In line with previous studies, dividends are replaced by earnings, E, because dividends is derived from Earnings. MacDonald and Power (1995), De Bont (2008), among many other Nobel Prize winners, argue that dividends alone may not provide investors with a sufficient signal about a firm’s future growth prospects. There are many implications in using earnings to evaluate risk premium across country for this thesis. The main drawback is the different

regulation rules for financial statements, which can alter reported earnings greatly, dividends on the other hand cannot be altered. Another reasoning to remain with dividends is that we are using index for market prices and imitating index funds dividends, which are reported, unlike earnings.

Data Specifications

Geert Hofstedes' cultural indexes are directly obtained through Geert Hofstedes' studies and data collection from his website, www.geerthofstede.nl. Risk premium model's dividends are found by using the market index's replicating fund's dividends. The risk-free interest rate is defined as the 10-year government bond yield. For the growth rate of the market, the GDP growth for the countries will be the best index of growth for the countries' major stock market. Price will refer to the spot prices of the market's index on June 22.

The end-of-month stock price index is gathered from Bloomberg. The dividends are found through the index funds that replicate the market index for each country. The replicating index and the index funds are found at iShares. The applicable sample period will start in June 2007 and conclude in June 2011 for 31 major countries.

ANALYSIS

Analysis of Power Distance

Power distance index (PDI) is calculated by the magnitude of perceived power difference between the subordinate and his supervisor. High PDI index is prevalent in countries with a low proportion of concentrated wealthier classes and a greater amount of middle-lower classes (Hofstede, 2001). Countries with high power distance had lower levels of education and lower status occupations; in turn countries with lower power distance had higher education, higher status occupations. In summary, countries with high power distance display social and demographical characteristics of developing or underdeveloped countries. Underdeveloped and developing countries have greater risk premiums, because of the additional instability risks. Underdeveloped and developing countries also have a higher growth rate, compared to stable developed countries. Commonly, the higher the growth rates, the higher the cost of capital, and subsequently the greater the risk premium.

Consequentially countries with higher power distance will have a higher premium risk rate because of the culture's instability and a lower divisibility of risk because of the lower quantity of investors.

Hypothesis: Countries with higher PDI will have a higher Risk Premium.

Analysis of Uncertainty Avoidance

Strict timetables, precise objectives, and detailed assignments are stressed in high uncertainty avoidance index (UAI) countries. They view achievement and motivation as fear of failure. Contrastingly, low UAI countries view achievement motivation as hope for success and they enjoy an "open-minded" approach, with stimulating discussions and no timetables. Mannerisms of low UAI countries demonstrate optimism and daring for new investments, as where high UAI traits are strict and repetitive, with no desire for additional risks of new challenges. In finance, countries with high UAI would invest in less riskier assets, such as precious metals and gems, and countries with low UAI would invest in riskier assets and have a higher risk premium (De Mooji, 2000).

Hypothesis: Risk premium will have a positive correlation to the uncertainty avoidance index. Countries with high UAI will prefer a higher risk premium because they would favor safe investments.

Analysis of Individualism and Collectivism

Gelfand et al. (2002) define collectivism and individualism as: "The self is served in individualistic cultures by being distinct from and better than others, in order to accomplish the culturally mandated task of being independent and standing out. By contrast, the self is served in collectivistic cultures by being accepted by others and by focusing on negative characteristics, in order to accomplish the culturally mandated task of being interdependent and blending in."

Through multiple cross-cultural psychological experimentations and surveys, Markus and Kitayama (1991) and Heine et al. (1999) discovered that people in individualistic cultures

believe they perform above average, unlike collectivistic cultures. As Van den Steen (2004) argues that overoptimistic individuals overestimate the precision of their predictions. In contrast, collective cultures value behaving adequately and adjusting to distinct social circumstances, they have high self-monitoring (Church et al.,2006). Biais et al. (2005) conducted a recent study on trading behavior, "in an experimental financial market under asymmetric information, self-monitoring helps to reduce the cognitive bias caused by overconfidence."

Zuckerman's studies show another individualism link with self-attribution bias; he describes as the tendency of people to "enhance or protect their self-esteem by taking credit for success and denying responsibility for failure" (Zuckerman, 1979). Markus and Kitayama (1991) and Kagitcibasi (1997) research standby Zuckermans' correlation, the tendency to conserve and encourage self-esteem in high individualism index cultures results in an inescapable self-attribution bias, as well as overconfidence. According to various works, overconfidence causes excessive trading volume and volatility (Statman, Thorley, and Vorkink (2006), and Glaser and Weber (2009)). In turn, countries with higher volatility will have a higher risk premium.

Hypothesis: Higher individualistic index countries will have a positive correlation to risk premium, because of overconfidence and self-attribution biases.

Analysis on Masculinity

Countries in opposite ends of this index have different interests and curiosities; they pay attention to different subjects. High masculinity index countries have high "report" talk, giving information about materials or stating events, as where lower masculinity, known as Feminity, prefers "rapport" talk, a transactional language offering input and feelings (Tannen, 1992). Eurodata 91 displays masculinity high countries are interested in nonfiction; whereas feminity indexed countries prefer to read fiction (Hofstede, 2001). Consequentially, masculinity high countries demonstrate higher interest in investments, by reading about the news, the stock market, and current events.

Although countries high in masculinities index will have a higher interest in the stock market, it is hard to conclude a correlation to perceptions of risk premium of such ambiguous perceptions of what society should value.

Borghan et al. (2008) conduct experiments concerning genders differences to risk. Results from surveys conclude that on average women are less willing to take risks than men, and in turn have lower return rates. According to gender value similarities between women and feminist countries, men and masculinity countries, it is reasonable to conclude that feminist countries will have lower high-risk premium. For the prevention of reverse ecological fallacy, individual gender dimensions cannot be oversimplified to groups; in turn we use researched data of gender groups (Clancy, 2003).

Hypothesis: Countries with higher Masculinity indexes will have an inverse correlation with risk premium because of gender's value and preference.

RESULTS

Regression Analysis

A regression analysis was implemented to calculate the statistical significance of the relationship between Geert Hofstede's index and the average risk premium. Because of different data availability, 31 countries were divided into 2 groups. One group, "5 Year Data", uses an average of 5 years of risk premium. The second group, "3 Year Data" uses an average risk premium of 3 years. We performed a total of eight regression analysis, so that we are able to analyze each factor individually. Through this section we conclude that there is a significant relationship if the p-value is lower than 5% and the T-test is greater than 1.46.

Figure 1

Power Index 5 Years of Data

Countries	Risk Premium Average	Power Index
Australia Stock Market	5.74	36
Austria Stock Market	4.06	11
Belgium Stock Market	4.24	65
Brazil Stock Market	5.34	69
Canada Stock Market	3.56	39
China Stock Market	3.66	80
France Stock Market	3.95	68
Germany Stock Market	3.63	35
Hong Kong Stock Market	3.21	68
Italy Stock Market	4.80	50
Japan Stock Market	1.54	54
Malaysia Stock Market	4.03	104
Mexico Stock Market	7.75	81
Netherlands Stock Market	3.93	38
Singapore Stock Market	2.64	74
South Africa Stock Market	8.99	49
South Korea Stock Market	5.17	60
Spain Stock Market	4.79	57
Sweden Stock Market	3.55	31
Switzerland Stock Market	2.42	34
United Kingdom Stock Market	4.25	35
United States Stock Market	3.87	40

Figure 2

Regression Analysis of "Power Index 5 Years of Data"

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.1122
R Square	0.01260
Adjusted R Square	-0.03676
Standard Error	1.6617
Observations	22

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.7048	0.7048	0.2552	0.6189
Residual	20	55.2267	2.7613		
Total	21	55.9315			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	3.8647	0.9736	3.9692	0.0007	1.8337	5.8957	1.8337	5.8957
X Variable 1	0.0085	0.01693	0.5052	0.6189	-0.02677	0.04388	-0.02677	0.04388

The first regression analysis done on the 5 year data group reflects that the data's relationship and validity is practically nonexistent. R squared tells us that a total of 1.26% of the risk premium variance can be explained by the power distance index. The ANOVA analysis tells us that there is a 0.7 error due to the regression line, and 55.22 due to the data information. In turn, there is a 55.93% variance. The F score tells us 61% of the regression analysis was by chance occurrence. The p-value for the intercept is below 0.05 showing a high reliability of power index predictions of risk premium, but the x variable is higher than 0.05, 0.619, showing a low reliability. This graph shows that there is not enough significance in the power distance index's influence on risk premium to conclude a relationship.

Figure 3

Power Index 3 Years of Data

Countries	Risk Premium Average	Power Index
Israel Stock Market	5.00	13
Denmark Stock Market	3.31	18
Norway Stock Market	3.74	31
Finland Stock Market	3.41	33
Peru Stock Market	6.26	64
Thailand Stock Market	3.67	64
Turkey Stock Market	3.15	66
Colombia Stock Market	6.36	67
Indonesia Stock Market	8.83	78

Figure 4

Regression Analysis of "Power Index 3 Years of Data"

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.5364
R Square	0.2874
Adjusted R Square	0.1857
Standard Error	1.7500
Observations	9

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	8.6503	8.6503	2.8244	0.1367
Residual	7	21.4389	3.0627		
Total	8	30.0892			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.7962	1.35809	2.0590	0.0784	-0.4149	6.0074	-0.4149	6.0074
X Variable 1	0.04273	0.0254	1.6805	0.1367	-0.0173	0.1028	-0.0173	0.1028

The regression analysis done on the 3-year data group reflects that the data's low validity. R squared tells us that 28.7% of the risk premium variance can be explained by the power distance index. The ANOVA analysis tells us that there is an 8.65 error due to the regression line, and only 21.44 due to the data information. In turn, there is a 30% error of the variable. The significance F tells us 13% of the regression analysis was by chance occurrence. The p-value for the intercept is above 0.07 and the x variable is 0.619, showing a low reliability. This graph shows that there is low significance in the power distance index's influence on risk premium to conclude a relationship.

Figure 5

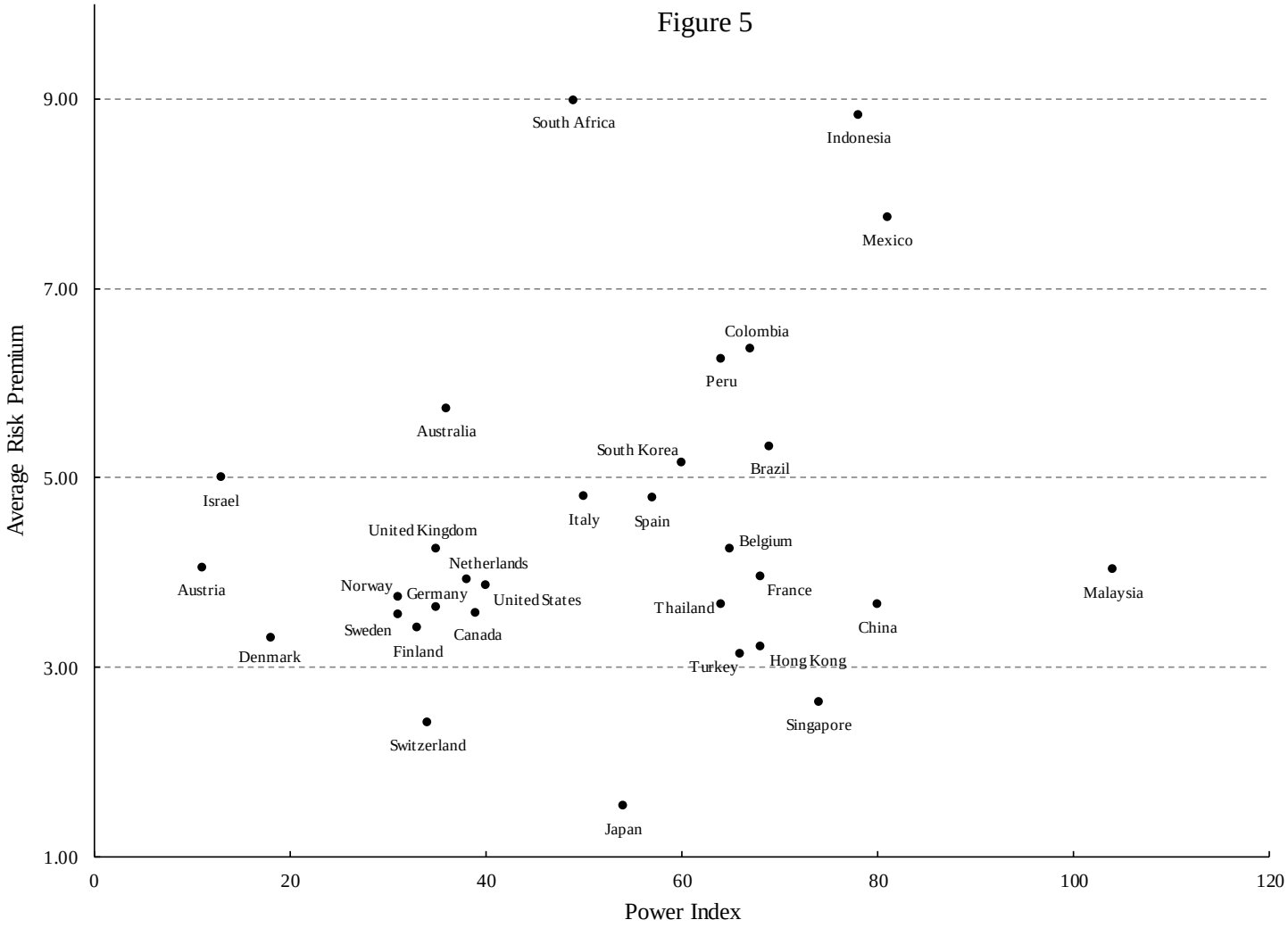

9.00
7.00
5.00
3.00
1.00
Average Risk Premium
0
20
40
60
80
100
120
Power Index
South Africa
Indonesia
Mexico
Colombia
Peru
Australia
South Korea
Brazil
Israel
Italy
Spain
United Kingdom
Belgium
Netherlands
Austria
Norway
Germany
United States
France
Malaysia
Thailand
China
Sweden
Canada
Denmark
Finland
Turkey
Hong Kong
Singapore
Switzerland
Japan

Figure 6

Masculinity Index: 5 Years of Data

Countries	Risk Premium Average	Masculinity Index
Australia Stock Market	5.74	61
Austria Stock Market	4.06	79
Belgium Stock Market	4.24	54
Brazil Stock Market	5.34	49
Canada Stock Market	3.56	52
China Stock Market	3.66	66
France Stock Market	3.95	43
Germany Stock Market	3.63	66
Hong Kong Stock Market	3.21	57
Italy Stock Market	4.80	70
Japan Stock Market	1.54	95
Malaysia Stock Market	4.03	50
Mexico Stock Market	7.75	69
Netherlands Stock Market	3.93	14
Singapore Stock Market	2.64	48
South Africa Stock Market	8.99	83
South Korea Stock Market	5.17	39
Spain Stock Market	4.79	42
Sweden Stock Market	3.55	5
Switzerland Stock Market	2.42	70
United Kingdom Stock Market	4.25	66
United States Stock Market	3.87	62

Figure 7

Regression Analysis of "Masculinity Index 5 Years of Data"

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.1082
R Square	0.0117
Adjusted R Square	-0.0377
Standard Error	1.6624
Observations	22

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.6548	0.6548	0.2369	0.6317
Residual	20	55.2766	2.7638		
Total	21	55.9315			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	3.8391	1.0552	3.6380	0.0016	1.6378	6.0403	1.6378	6.0403
X Variable 1	0.0085	0.0176	0.4867	0.6317	-0.0282	0.0453	-0.0282	0.0453

The regression analysis reflects that the variables' relationship and validity is low. R squared tells us that 11.7% of the risk premium variance can be explained by the masculinity distance index. The ANOVA analysis tells us that there is a 0.65 error due to the regression line, and 55.27 due to the data information. In turn, there is a 55% error of the variable. The significance F tells us 63% of the regression analysis was by chance occurrence. The p-value for the intercept is below 0.05, 0.00, and the x variable is above 0.05, 0.631, showing a low reliability. This graph shows that there is low significance in the masculinity index's influence on risk premium to conclude a relationship.

Figure 8

Masculinity Index 3 Years of Data

Countries	Risk Premium Average	Masculinity Index
Norway Stock Market	3.74	8
Denmark Stock Market	3.31	16
Finland Stock Market	3.41	26
Thailand Stock Market	3.67	34
Peru Stock Market	6.26	42
Turkey Stock Market	3.15	45
Indonesia Stock Market	8.83	46
Israel Stock Market	5.00	47
Colombia Stock Market	6.36	64

Figure 9

Regression Analysis of "Masculinity Index 3 Years of Data"

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.5773
R Square	0.3333
Adjusted R Square	0.2380
Standard Error	1.6928
Observations	9

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	10.0289	10.0289	3.4995	0.1035
Residual	7	20.060	2.8657		
Total	8	30.0892			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	2.5053	1.3780	1.8180	0.1118	-0.7531	5.7639	-0.7531	5.7639
X Variable 1	0.0645	0.0344	1.8707	0.1035	-0.0170	0.1461	-0.0170	0.1461

The regression analysis reflects that the variables' relationship and validity is low. R squared tells us that 33.33% of the risk premium variance can be explained by the masculinity index. The ANOVA analysis tells us that there is a 10.02 error due to the regression line, and 20.06 due to the data information. In turn, there is a 55% error of the variable. The significance F tells us 10% of the regression analysis was by chance occurrence. The p-value for the intercept is above 0.05, 0.11, and the x variable is above 0.05, 0.10, showing a low reliability. This graph shows that there is low significance in the masculinity index's influence on risk premium to conclude a relationship.

Figure 10

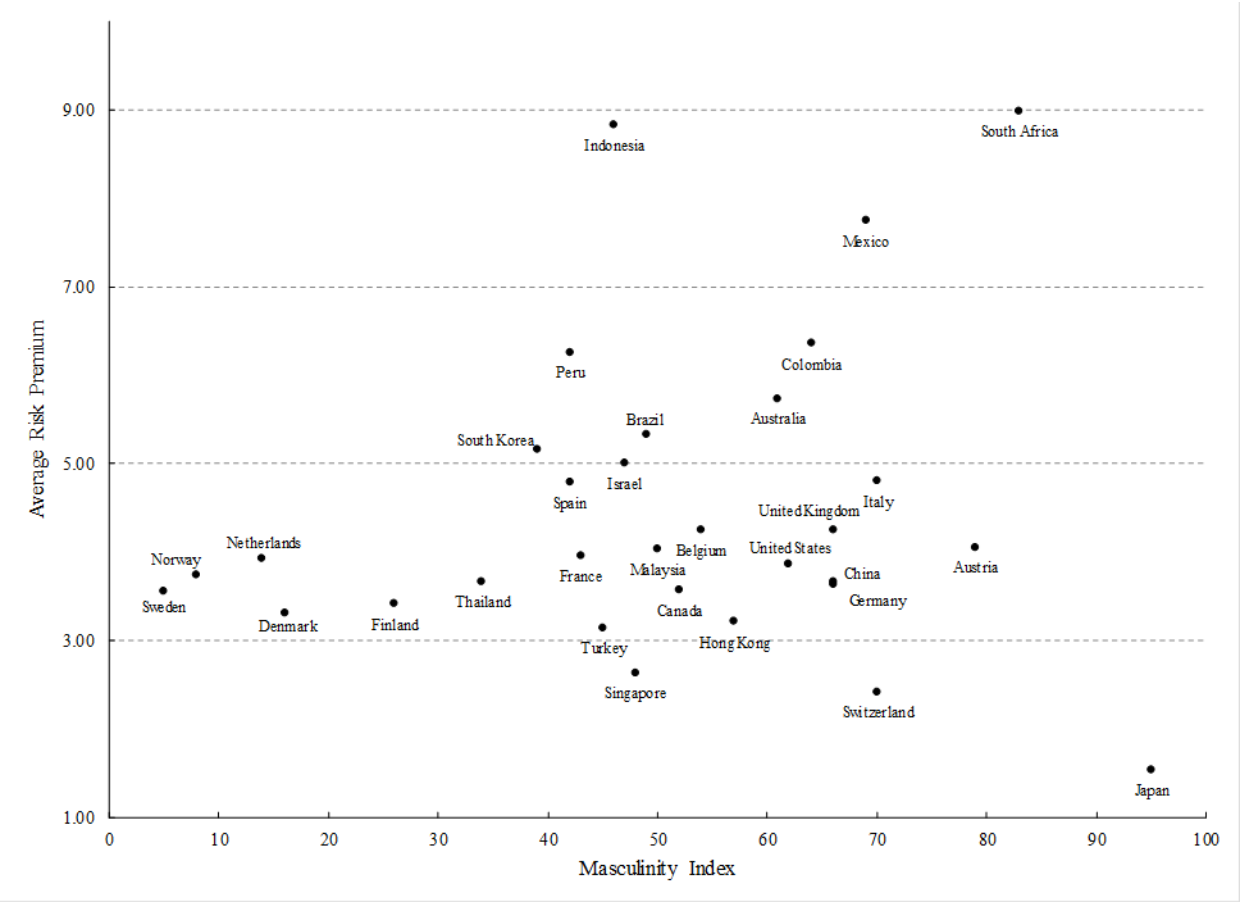

Average Risk Premium
9.00
7.00
5.00
3.00
1.00
0
10
20
30
40
50
60
70
80
90
100
Masculinity Index
Indonesia
South Africa
Mexico
Peru
Colombia
Australia
Brazil
South Korea
Israel
Spain
United Kingdom
Italy
Netherlands
Norway
Belgium
United States
Austria
France
Malaysia
China
Germany
Sweden
Thailand
Canada
Denmark
Finland
Turkey
Hong Kong
Singapore
Switzerland
Japan

Figure 11

Uncertainty Avoidance Index 5 Years of Data

Countries	Risk Premium Average	Uncertainty Avoidance Index
Australia Stock Market	5.74	51
Austria Stock Market	4.06	70
Belgium Stock Market	4.24	94
Brazil Stock Market	5.34	76
Canada Stock Market	3.56	48
China Stock Market	3.66	30
France Stock Market	3.95	86
Germany Stock Market	3.63	65
Hong Kong Stock Market	3.21	29
Italy Stock Market	4.80	75
Japan Stock Market	1.54	92
Malaysia Stock Market	4.03	36
Mexico Stock Market	7.75	82
Netherlands Stock Market	3.93	53
Singapore Stock Market	2.64	8
South Africa Stock Market	8.99	49
South Korea Stock Market	5.17	85
Spain Stock Market	4.79	86
Sweden Stock Market	3.55	29
Switzerland Stock Market	2.42	58
United Kingdom Stock Market	4.25	35
United States Stock Market	3.87	46

Figure 12

Regression Analysis of "Uncertainty Avoidance Index 5 Years of Data"

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.1880
R Square	0.0353
Adjusted R Square	-0.0128
Standard Error	1.6424
Observations	22

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	1.9778	1.9778	0.7331	0.4020
Residual	20	53.9537	2.6976		
Total	21	55.9315			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	3.5895	0.9253	3.8792	0.0009	1.6593	5.5197	1.6593	5.51975
X Variable 1	0.0125	0.0146	0.8562	0.4020	-0.0180	0.0432	-0.0180	0.04321

The regression analysis reflects that the variables' relationship and validity is low. R squared tells us that 3.5% of the risk premium variance can be explained by the uncertainty avoidance index. The ANOVA analysis tells us that there is a 1.97 error due to the regression line, and 53.95 due to the data information. In turn, there is a 55% error of the variable. The significance F tells us 40% of the regression analysis was by chance occurrence. The p-value for the intercept is below 0.05, 0.00, and the x variable is above 0.05, 0.40, showing a low reliability. This graph shows that there is low significance in the uncertainty avoidance index's influence on risk premium to conclude a relationship.

Figure 13

Uncertainty Avoidance 3 Years of Data

Countries	Risk Premium Average	Uncertainty Avoidance Index
Denmark Stock Market	3.31	23
Indonesia Stock Market	8.83	48
Norway Stock Market	3.74	50
Finland Stock Market	3.41	59
Thailand Stock Market	3.67	64
Colombia Stock Market	6.36	80
Israel Stock Market	5.00	81
Turkey Stock Market	3.15	85
Peru Stock Market	6.26	87

Figure 14

Regression Analysis of "Uncertainty Avoidance Index 3 Years of Data"

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.1370
R Square	0.0187
Adjusted R Square	-0.1213
Standard Error	2.0537
Observations	9

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.5651	0.5651	0.1339	0.7251
Residual	7	29.5241	4.2177		
Total	8	30.0892			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	4.0619	2.2778	1.7832	0.1177	-1.3242	9.4482	-1.3242	9.44801
X Variable 1	0.0124	0.0338	0.3660	0.7251	-0.0677	0.0925	-0.0677	0.09253

The regression analysis reflects that the variables' relationship and validity is low. R squared tells us that 1.87% of the risk premium variance can be explained by the uncertainty avoidance index. The ANOVA analysis tells us that there is a .56 error due to the regression line, and 29.52 due to the data information. In turn, there is a 30% error of the variable. The significance F tells us 75% of the regression analysis was by chance occurrence. The p-value for the intercept is above 0.05, 0.11, and the x variable is above 0.05, 0.72, showing a low reliability. This graph shows that there is low significance in the uncertainty avoidance index's influence on risk premium to conclude a relationship.

After analyzing the scatter plot graph, Figure 15, South Africa and Indonesia are considerably further away from the group of plots. Supposing the two countries were outliers, another set of regression analysis was run. The results were only significantly different for the uncertainty avoidance index, as figure 16 will show the r squared is only 14.86% but in turn the ANOVA significance F shows that only 3.8% of the graph was by occurrence. To support the significance, both p-values are below .05, showing a high reliability.

Figure 15

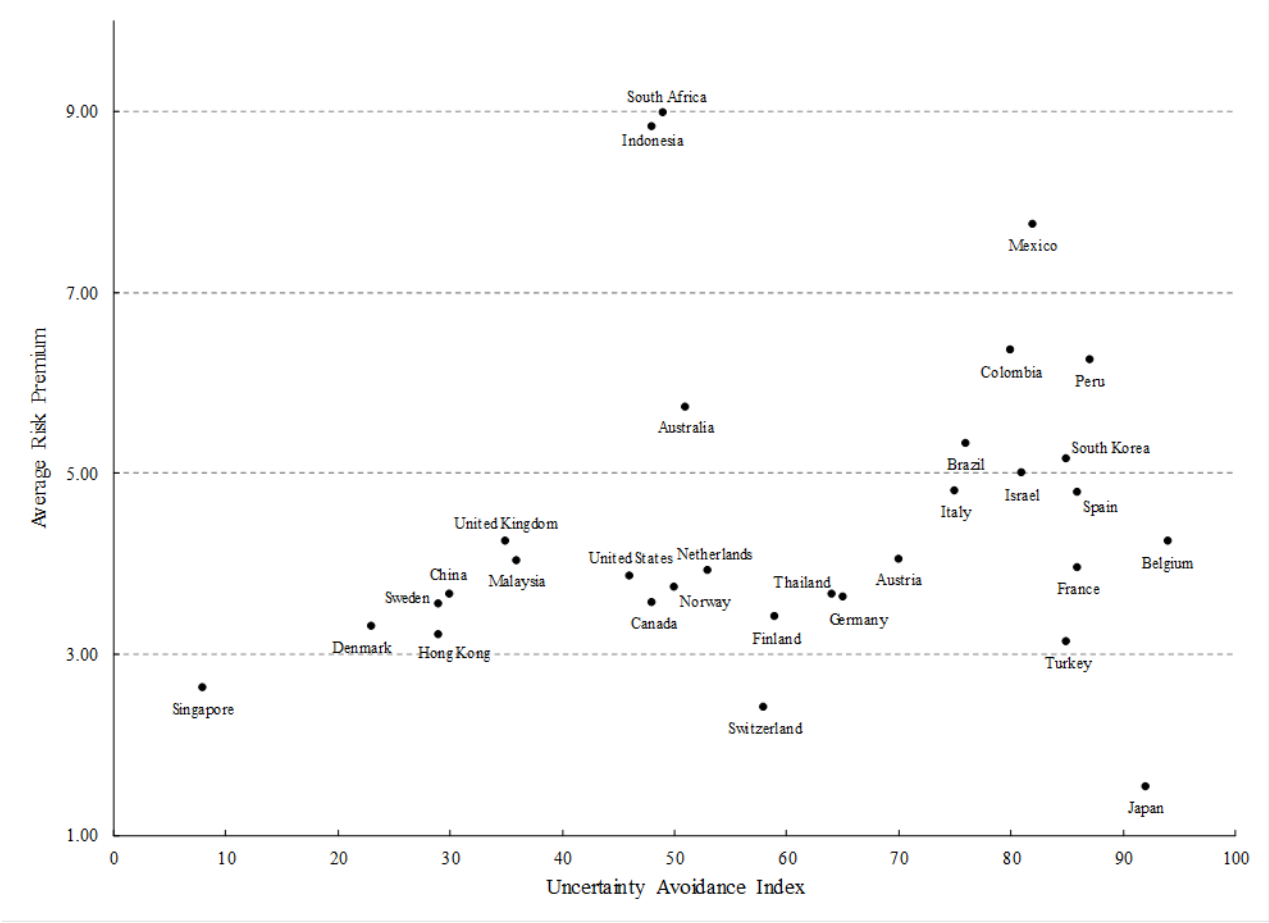

South Africa
Indonesia
Mexico
Colombia
Peru
Australia
Brazil
South Korea
Israel
Italy
Spain
United Kingdom
United States
Netherlands
China
Malaysia
Thailand
Austria
Belgium
Sweden
Norway
France
Canada
Germany
Finland
Denmark
Hong Kong
Turkey
Singapore
Switzerland
Japan
9.00
7.00
5.00
3.00
1.00
0
10
20
30
40
50
60
70
80
90
100
Average Risk Premium
Uncertainty Avoidance Index

Figure 16

Exclude South Africa and Indonesia

Regression Statistics	
Multiple R	0.3855
R Square	0.1486
Adjusted R Square	0.1171
Standard Error	1.2028
Observations	29.0000

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1.0000	6.8186	6.8186	4.7134	0.0389
Residual	27.0000	39.0598	1.4467		
Total	28.0000	45.8784			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	2.9219	0.6179	4.7291	0.0001	1.6542	4.1896
Uncertainty Avoidance Index	0.0206	0.0095	2.1710	0.0389	0.0011	0.0400

Figure 17

Individualism Index 5 Years of Data

Countries	Risk Premium Average	Individualism Index
Australia Stock Market	5.74	90
Austria Stock Market	4.06	55
Belgium Stock Market	4.24	75
Brazil Stock Market	5.34	38
Canada Stock Market	3.56	80
China Stock Market	3.66	20
France Stock Market	3.95	71
Germany Stock Market	3.63	67
Hong Kong Stock Market	3.21	25
Italy Stock Market	4.80	76
Japan Stock Market	1.54	46
Malaysia Stock Market	4.03	26
Mexico Stock Market	7.75	30
Netherlands Stock Market	3.93	80
Singapore Stock Market	2.64	20
South Africa Stock Market	8.99	65
South Korea Stock Market	5.17	18
Spain Stock Market	4.79	51
Sweden Stock Market	3.55	71
Switzerland Stock Market	2.42	68
United Kingdom Stock Market	4.25	89
United States Stock Market	3.87	91

Figure 18

Regression Analysis of "Individualism Index 5 Years of Data"

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.0218
R Square	0.0004
Adjusted R Square	-0.0494
Standard Error	1.6718
Observations	22

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	0.0267	0.0267	0.0095	0.9229
Residual	20	55.9047	2.7952		
Total	21	55.9315			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	4.2418	0.9020	4.7023	0.0001	2.3601	6.1234	2.3601	6.1234
X Variable 1	0.0014	0.0145	0.0979	0.9229	-0.0289	0.0317	-0.0289	0.0317

The regression analysis reflects that the variables' relationship and validity is nonexistent. R squared tells us that 0.04% of the risk premium variance can be explained by the Individualism index. The ANOVA analysis tells us that there is a 0.03 error due to the regression line, and 55.90 due to the data information. In turn, there is a 55% error of the variable. The significance F tells us 9.29% of the regression analysis was by chance occurrence. The p-value for the intercept is below .05, 0.00, and the x variable is barely above 0.05, 0.90, showing a low reliability. This graph shows that there is low significance in the individualism index's influence on risk premium to conclude a relationship.

Figure 19

Individualism Index 3 Years of Data

Countries	Risk Premium Average	Individualism Index
Colombia Stock Market	6.36	13
Indonesia Stock Market	8.83	14
Peru Stock Market	6.26	16
Thailand Stock Market	3.67	20
Turkey Stock Market	3.15	37
Israel Stock Market	5.00	54
Finland Stock Market	3.41	63
Norway Stock Market	3.74	69
Denmark Stock Market	3.31	74

Figure 20

Regression Analysis of "Individualism Index 3 Years of Data"

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.6751
R Square	0.4558
Adjusted R Square	0.3780
Standard Error	1.5294
Observations	9

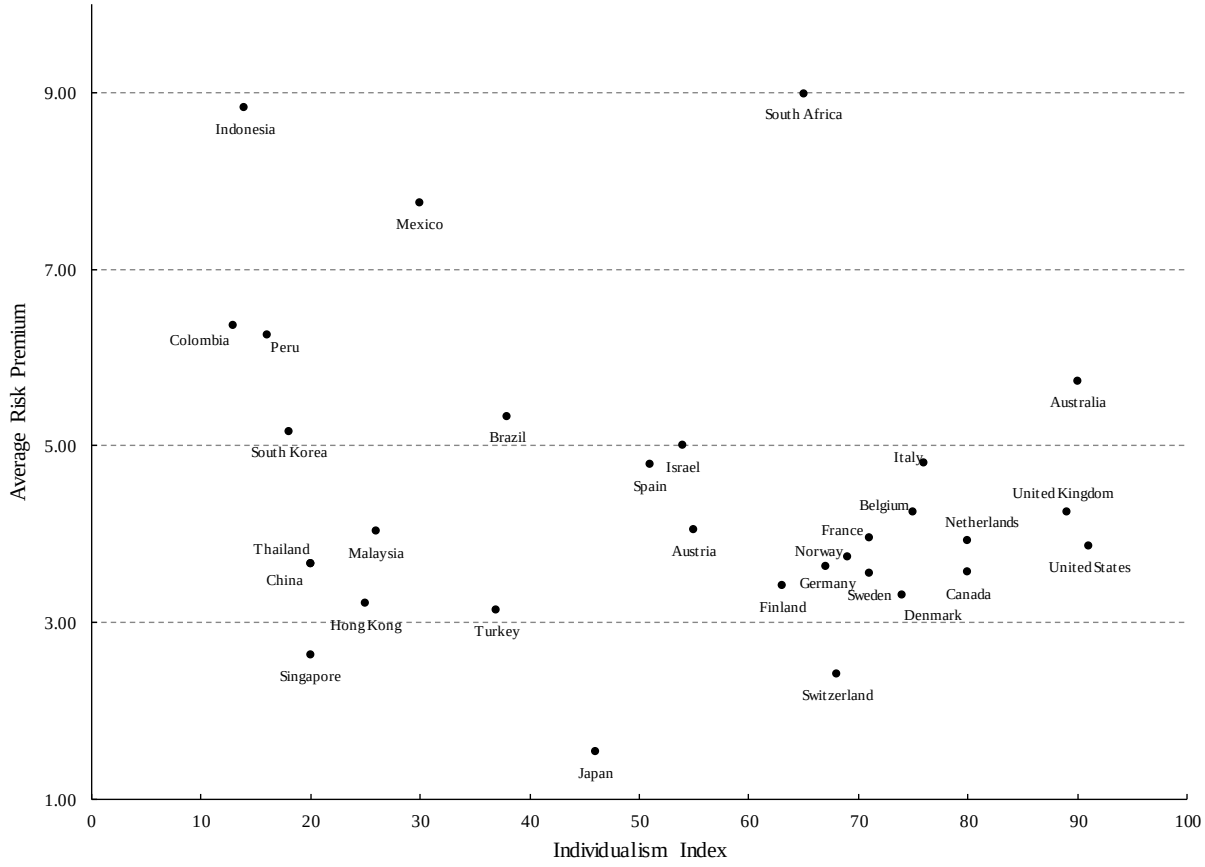
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	13.7150	13.7150	5.8632	0.0459
Residual	7	16.3741	2.3391		
Total	8	30.0892			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	6.9291	0.9960	6.956	0.0002	4.5739	9.2843	4.5739	9.284
X Variable 1	-0.05179	0.0213	-2.4214	0.0459	-0.1023	-0.0012	-0.1023	-0.00155

The regression analysis reflects that the variables' relationship and validity is inexistent. R squared tells us that 45.6% of the risk premium variance can be explained by the Individualism distance index. The ANOVA analysis tells us that there is a 13.7 error due to the regression line, and 16.37 due to the data information. In turn, there is a 30% error of the variable. The significance F tells us 4.5% of the regression analysis was by chance occurrence. The p-value for the intercept is below .05, 0.00, and the x variable is below 0.05, 0.45, showing a high reliability. This graph shows that there is high significance in the individualism index's influence on risk premium to conclude a relationship.

Figure 21


9.00
7.00
5.00
3.00
1.00
Average Risk Premium
0
10
20
30
40
50
60
70
80
90
100
Individualism Index
Indonesia
South Africa
Mexico
Colombia
Peru
Australia
Brazil
South Korea
Israel
Spain
Italy
United Kingdom
Belgium
Netherlands
France
Thailand
Malaysia
Austria
Norway
United States
China
Germany
Sweden
Canada
Finland
Denmark
Hong Kong
Turkey
Singapore
Switzerland
Japan

In Summary, the empirical evidence suggests that there were significant relationships by the individualism index and by the uncertainty avoidance index. In congruence with my hypothesis, the relationship shows the higher the individualism index, the higher the risk premium was. Second best variable relationship significance is the uncertainty avoidance index. It supports the hypothesis that a higher uncertainty avoidance index will lead to a higher risk premium. A noticeable point in this research is that the three-year data group collectively outdid the 5-year data group, possibility because of the regained stability after the market crash of 2007.

CONCLUSION

The objective was to attempt to discover a correlation between Geert Hofstede's cultural indexes and country-specific risk premium. To do so we had to calculate the risk premium of every country by using Dividend discount Method infused with the Capital Asset Price Model. After the index price, dividend, GDP growth, and 10 year government bonds of each country from 2007 to 2011 were gathered, regression analyses were computed to compare the statistical significance of the each individual index's relation with the average risk premium.

The results were mostly inconclusive. The two main findings are the positive correlation of uncertainty avoidance and the statistically significant individualism index. Figure 15 demonstrates than the higher uncertainty avoidance index does not cause a lower risk premium. If there were to be any correlation it would be a positive one, Singapore being the primary example with an uncertainty avoidance index of 8 and a risk premium of 2.64%. In support of hypothesis four, Figure 20 shows the positive correlation of high individualism and high-risk premiums. This correlation is attributed to the overconfident, self-attribution bias of individualistic investors. The evidence gathered from the individualism index result indicates "culture can have an important effect on stock return patterns, which is consistent with the idea that investors in different cultures interpret information in different ways and are subject to different biases"(Chui, 389). It is important to understand biases and errors in order to maximize stock holding returns, as Paul Slovic writes, "a full understanding of human limitation will ultimately benefit the decision-maker more than will naïve faith in the infallibity of his intellect" (Slovic, 1972).

APPENDIX A: INDEX AND CORRELATING INDEX FUND

Index	Related iShares Fund
FTSE China 25 Index	FXI
MSCI All Peru Capped Index	EPU
MSCI Australia Index	EWA
MSCI Austria Investable Market Index	EWO
MSCI Belgium Investable Market Index	EWK
MSCI Brazil Index(SM)	EWZ
MSCI Canada Index	EWC
MSCI Chile Investable Market Index	ECH
MSCI China Index	MCHI
MSCI France Index	EWQ
MSCI Germany Index	EWG
MSCI Hong Kong Index	EWH
MSCI India Total Return Index(SM)	INDA
MSCI Indonesia Investable Market Index	EIDO
MSCI Israel Capped Investable Market Index	EIS
MSCI Italy Index	EWI
MSCI Japan Index(SM)	EWJ
MSCI Korea Index(SM)	EWY
MSCI Malaysia Index	EWM
MSCI Mexico Investable Market Index	EWW
MSCI Netherlands Investable Market Index	EWN
MSCI New Zealand Investable Market Index	ENZL
MSCI Poland Investable Market Index	EPOL
MSCI Singapore Index	EWS
MSCI South Africa Index	EZA
MSCI Spain Index	EWP
MSCI Sweden Index	EWD
MSCI Switzerland Index	EWL
MSCI Thailand Investable Market Index	THD
MSCI Turkey Investable Market Index	TUR
MSCI United Kingdom Index	EWU
MSCI USA Index	EUSA

APPENDIX B: 5 YEAR GDP GROWTH

Date	6/30/11	6/30/10	6/30/09	6/30/08	6/30/07
Australia Stock Market	1.10%	3.30%	0.90%	2.70%	5.40%
Austria Stock Market	3.90%	2.40%	-5.70%	3.00%	3.20%
Belgium Stock Market	2.20%	2.70%	-4.10%	1.80%	2.50%
Brazil Stock Market	3.10%	6.70%	-2.80%	6.33%	5.15%
Canada Stock Market	2.20%	3.60%	-3.18%	1.71%	1.45%
China Stock Market	9.50%	9.60%	7.90%	10.60%	13.00%
France Stock Market	1.58%	1.60%	-2.00%	2.60%	2.30%
Germany Stock Market	3.00%	4.30%	-2.00%	2.50%	3.20%
Hong Kong Stock Market	5.00%	6.90%	-7.70%	6.90%	6.70%
Italy Stock Market	0.80%	1.50%	-6.70%	0.30%	2.50%
Japan Stock Market	-1.10%	3.20%	-10.30%	1.30%	3.50%
Malaysia Stock Market	4.30%	9.00%	-6.20%	7.50%	5.40%
Mexico Stock Market	3.20%	7.60%	-7.20%	2.30%	3.00%
Netherlands Stock Market	1.60%	2.10%	-0.90%	4.50%	3.10%
Pakistan Stock Market	2.39%	3.76%	1.72%	6.81%	5.82%
Singapore Stock Market	1.00%	10.50%	2.10%	0.00%	9.50%
South Africa Stock Market	3.00%	2.70%	-2.10%	3.80%	5.10%
South Korea Stock Market	3.40%	4.40%	1.00%	3.30%	4.90%
Spain Stock Market	0.70%	0.20%	-3.90%	0.50%	3.50%
Sweden Stock Market	4.90%	6.60%	-6.40%	0.00%	2.50%
Switzerland Stock Market	2.30%	2.60%	-1.70%	1.45%	3.71%
United Kingdom Stock Market	1.60%	3.30%	-5.00%	1.00%	1.70%
United States Stock Market	0.10%	1.10%	-0.20%	-0.30%	0.60%

APPENDIX C: 3 YEAR GDP GROWTH

Date	6/30/11	6/30/10	6/30/09	6/30/08	6/30/07
Colombia Stock Market	5.20%	3.60%	0.70%	5.20%	7.70%
Denmark Stock Market	1.80%	2.83%	-4.29%	1.45%	3.40%
Finland Stock Market	2.90%	4.70%	-3.10%	5.00%	4.00%
Indonesia Stock Market	6.50%	5.80%	4.53%	6.11%	6.06%
Israel Stock Market	5.00%	4.80%	-0.14%	5.96%	4.97%
Norway Stock Market	-0.40%	1.80%	-1.09%	2.77%	1.55%
Peru Stock Market	6.70%	10.02%	6.50%	8.99%	8.71%
Thailand Stock Market	2.70%	6.60%	-2.70%	2.90%	5.30%
Turkey Stock Market	1.30%	3.70%	6.69%	15.75%	6.50%

APPENDIX D: 5 YEAR RISK FREE RATE

Date	6/24/11	6/24/10	6/24/09	6/24/08	6/25/07
Australia Stock Market	5.08	5.31	5.62	6.56	6.25
Austria Stock Market	3.5	3.09	4.24	4.84	4.67
Belgium Stock Market	4.14	3.48	4.04	4.92	4.69
Brazil Stock Market	3.99	4.69	6.27	5.67	6.23
Canada Stock Market	2.86	3.22	3.45	3.73	4.62
China Stock Market	3.99	3.3	3.13	4.27	4.12
France Stock Market	3.41	3.09	3.84	4.79	4.7
Germany Stock Market	2.83	2.66	3.48	4.61	4.66
Hong Kong Stock Market	2.42	2.44	2.8	3.8	4.78
Italy Stock Market	5.41	4.03	4.57	5.15	4.84
Japan Stock Market	1.12	1.24	1.52	1.81	1.97
Malaysia Stock Market	3.93	4.07	4.29	4.45	3.6
Mexico Stock Market	7.05	6.92	8.24	8.87	7.76
Netherlands Stock Market	3.28	2.93	4.03	4.81	4.68
Pakistan Stock Market	14.06	12.7	11.79	12.97	10.71
Singapore Stock Market	2.18	2.48	2.61	3.33	2.81
South Africa Stock Market	8.28	8.9	8.96	10.58	8.32
South Korea Stock Market	4.18	4.99	5.26	5.97	5.59
Spain Stock Market	5.77	4.46	4.17	4.88	4.66
Sweden Stock Market	2.84	2.54	3.51	4.48	4.45
Switzerland Stock Market	1.63	1.56	2.36	3.42	3.2
United Kingdom Stock Market	3.13	3.55	3.88	5.25	5.48
United States Stock Market	2.86	3.3	3.71	4.26	5.22

APPENDIX E: 3 YEAR RISK FREE RATE

Date	6/24/11	6/24/10	6/24/09
Colombia Stock Market	7.71	7.97	3.49
Denmark Stock Market	3.16	2.73	4.04
Finland Stock Market	3.28	2.93	4.07
Indonesia Stock Market	7.26	8	11.39
Israel Stock Market	5.16	4.59	5.34
Norway Stock Market	3.33	3.62	4.27
Peru Stock Market	6.76	6.27	5.98
Thailand Stock Market	3.79	3.23	4.04
Turkey Stock Market	3.1	2.96	3.49

APPENDIX F: 5 YEAR STOCK INDEX PRICES

Date	6/24/11	6/24/10	6/24/09	6/24/08	6/25/07
Australia Stock Market	2922.192	2328.374	1774.876	2751.631	2812.426
Austria Stock Market	574.626	420.453	375.284	857.718	974.113
Belgium Stock Market	542.655	449.313	363.894	988.215	762.528
Brazil Stock Market	690.297	621.315	472.209	751.358	500.849
Canada Stock Market	4929.842	4149.056	3139.977	4977.966	4305.467
China Stock Market	2483.37	23588.28	20489.33	24620.33	23200.36
France Stock Market	4620.471	3542.558	3268.985	5063.024	5682.459
Germany Stock Market	4466.613	3244.169	2814.89	4705.121	4916.919
Hong Kong Stock Market	36915.969	31108.85	25985.145	31956.631	30,196.24
Italy Stock Market	812.572	682.276	682.472	1154.711	1369.884
Japan Stock Market	3900.3859	3602.9498	3472.185	4554.6288	5131.0692
Malaysia Stock Market	402.941	307.215	218.623	260.943	281.6
Mexico Stock Market	1001.969	883.823	572.111	920.467	1007.424
Netherlands Stock Market	794.125	680.292	557.948	898.118	986.808
Pakistan Stock Market	12369.41	9682.32	7025.89	11162.17	13392.47
Singapore Stock Market	10247.259	8463.846	6427.175	8602.727	8954.019
South Africa Stock Market	488.985	393.166	292.67	348.038	381.785
South Korea Stock Market	627.541	479.128	338.736	511.869	571.43
Spain Stock Market	3113.525	2569.136	2799.241	3747.757	3785.348
Sweden Stock Market	16282.623	13437.028	8974.169	13899.993	17107.361
Switzerland Stock Market	7601.534	5940.924	5033.741	6778	7344.979
United Kingdom Stock Market	4576.62	3727.583	3262.776	4987.213	5790.851
United States Stock Market	2184.026	1822.048	1458.919	2085.077	2336.407

APPENDIX G: 3 YEAR STOCK INDEX PRICES

Date	6/24/11	6/24/10	6/24/09
Colombia Stock Market	2117.45	1795.03	1285.62
Denmark Stock Market	1322.29	1296.63	1092.63
Finland Stock Market	1322.29	1296.63	1092.63
Indonesia Stock Market	1913.323	1480.574	892.889
Israel Stock Market	3761.138	3293.126	2633.898
Norway Stock Market	1322.29	1296.63	1092.63
Peru Stock Market	2465.99	2214.33	1588.04
Thailand Stock Market	1775.061	1308.852	887.467
Turkey Stock Market	1114.1	1025.836	639.548

APPENDIX H: 5 YEAR DIVIDENDS

	Dividends 2011	Dividends 2010	Dividends 2009	Dividends 2008	Dividends 2007
Australia Stock Market	1.09	0.83	0.66	0.89	1.28
Austria Stock Market	0.59	0.25	0.89	0.79	0.71
Belgium Stock Market	0.57	0.24	0.23	1.19	0.72
Brazil Stock Market	1.70	2.72	2.82	3.16	0.07
Canada Stock Market	0.35	0.32	0.24	0.33	0.39
China Stock Market	1.48	0.63	0.55	0.77	0.70
France Stock Market	0.67	0.66	0.63	1.69	0.35
Germany Stock Market	0.67	0.29	0.56	1.22	0.52
Hong Kong Stock Market	0.41	0.45	0.48	0.61	0.38
Italy Stock Market	0.56	0.32	0.43	1.54	1.49
Japan Stock Market	0.19	0.14	0.14	0.14	0.14
Malaysia Stock Market	0.60	0.35	0.24	0.38	0.41
Mexico Stock Market	0.78	0.54	0.70	0.97	1.05
Netherlands Stock Market	0.55	0.32	0.42	1.11	1.03
Pakistan Stock Market	1.40	0.00	0.60	0.60	0.45
Singapore Stock Market	0.47	0.42	0.32	0.42	0.51
South Africa Stock Market	1.92	1.81	2.07	2.34	1.31
South Korea Stock Market	0.64	0.44	0.32	0.80	0.37
Spain Stock Market	2.92	2.15	2.05	2.30	1.16
Sweden Stock Market	1.04	0.55	0.50	1.28	1.11
Switzerland Stock Market	0.55	0.32	0.30	0.46	0.28
United Kingdom Stock Market	0.53	0.42	0.42	0.81	0.84
United States Stock Market	1.40	1.24	1.12	1.34	1.48

APPENDIX I: 3 YEAR DIVIDENDS

Date	Dividends 2011	Dividends 2010	Dividends 2009
Colombia Stock Market	0.21	0.00	1.06
Denmark Stock Market	0.59	0.00	0.01
Finland Stock Market	0.59	0.00	0.01
Indonesia Stock Market	0.35	0.85	0.00
Israel Stock Market	1.38	1.92	0.78
Norway Stock Market	0.95	0.00	0.01
Peru Stock Market	1.08	0.85	0.13
Thailand Stock Market	1.80	1.57	0.54
Turkey Stock Market	1.16	1.27	0.84

REFERENCES

Abel, A. (2002). An Exploration of the Effects of Pessimism and Doubt on Asset Returns. *Journal of Economic Dynamics and Control,* 26, 7, 1075–1092.

Aberle, D. F., Cohen, A. K., Davis, A. K., Levy, M. J., Jr., & Sutton, F. X. (1950). The functional prerequisites of a society. *Ethics*, 60, 100-111.

Arnold, G. (2005). Corporate financial management (3. ed. ed.). Harlow: Financial Times/Prentice Hall. pp. 354

Borghans, L., Heckman, J. J., Golsteyn, B. H., & Meijers, H. (2009). Gender Differences in Risk Aversion and Ambiguity Aversion. *Journal Of The European Economic Association*, 7, 2, 649-658.

Cattell, R. B., Graham, R.K., & Woliver, R. E. (1979). A reassessment of the factorial culture dimensions of modern nation. *Journal of Social Psychology*, 108, 241-258.

Cecchetti, S. G., Lam, P.-S., & Mark, N. (2000). Asset Pricing with Distorted Beliefs: Are Equity Returns Too Good to be True? *American Economic Review,* 90, 787–805.

Clancy, K. J., Berger, P. D., & Magliozzi, T. L. (2003). The Ecological Fallacy: Some Fundamental Research Misconceptions Corrected. *Journal Of Advertising Research*, 43, 4, 370-380.

Chui, Andy CW, Titman, Sheridan, &Wei, K.C John (2010). Individualism and Momentum around the World. *Journal of Finance,* 64, 1 ,361-392.

Cochrane, J. (2005). Asset Pricing. Princeton: Princeton University Press.

Cochrane, J. (2011). Presidential Address: Discount Rates. *Journal of Finance,* 64, 4 ,1047-1108.

De Bondt, G. (2008). Stock Price Determinants: New International Evidence. Journal of Portfolio Management, 34, 3, 81-92.

De Bondt, W., Muradoglu, G., Shefrin, H., & Staikouras, S. K. (2008). Behavioral Finance: Quo Vadis? Journal Of Applied Finance, 18(2), 7-21.

De Mooji, M. (2000). The future is predictable for international marketers: converging incomes lead to diverging consumer behavior. *International Marketing Review*, 17, 3, 103-113.

Douglas, M. (1973). Natural symbols: Explorations in cosmology. Harmondsworth, Middlesex, UK: Penguin.

Fama, E. (1970). Efficient capital markets: A review of theory and empirical work. *Journal of Finance,* 25, 383–417.

Gelfand, M., Higgins, M., Murakami, F., Yamaguchi, S., Nishii, L.,. Raver, J., & Dominguez, A. (2002). Culture and egocentric perceptions of fairness in conflict and negotiation, *Journal of Applied Psychology,* 87, 833– 845.

Glaser, Markus, and Martin Weber. (2009) Which past returns affect trading volume? *Journal of Financial Markets,* 12, 1–31.

Gordon, M. (1959). Dividends, Earnings and Stock Prices. *Review of Economics and Statistics (The MIT Press*), 41, 2, 99–105.

Hofstede G & McCrae R. (2004). Personality and Culture Revisited: Linking Traits and Dimensions of Culture. *Cross-Cultural Research,* 38, 52.

Hofstede, G. (1980). Motivation, leadership, and organization: Do American theories apply abroad? *Organizational Dynamics*, 9, 42–63.

Hofstede, G. (1980a). Culture's Consequences: International differences in work-related values. Beverly Hills, CA: Sage.

Hofstede, G. (1995). Multilevel Research of Human Systems: Flowers, Bouquets, and Gardens. *Human System Management*, 14, 201-217.

Hofstede, G. (2001). Culture's Consequences: Comparing values, behaviors, institutions, and organizations across nations (2nd ed.). London, England: Sage.

Jianbiao, L., Guangqian, R., Qiuhua, & Lüke,L. (2009). An experimental study on investors' status quo bias and its determinants. *Front. Bus. Res. China*, 3, 4, 543–565.

Kagitcibasi, Cigdem. (1997). Individualism and collectivism. In J.W. Berry, Marshall H. Segall, and Cigdem Kagitcibasi, eds.: Handbook of Cross-cultural Psychology. Allyn & Bacon, Boston.

Kahneman, D & Pipe M. W. (1998),]. Aspects of investor psychology. Journal of Portfolio Management,

Kluckhohn, F. R., & Strodtbeck, F. L. (1961). Variations in value orientations. Westport, CT: Greenwood Press.

Litner, J. (1965). Security Prices, Risk and Maximal Gains from Diversification. *Journal of Finance,* 20, 587-615.

MacDonald, R., and D. Power. (1995). Stock Prices, Dividends and Retention: Long-Run Relationships and Short-Run Dynamics." Journal of Empirical Finance, 2, 2, 135.

Markus, Hazel Rose, and Shinobu Kitayama (1991) Culture and the self: Implications for cognition, emotion, and motivation. Psychological Review 98, 224–253.

MOSSIN, J. (1996) Equilibrium in a Capital Asset Market. *Econometrica,* 34 , 768-783.

Parsons, T., and Shils, E. A. (1951). Toward a general theory of action. Cam- bridge, MA: Harvard University Press.

Sharpe,W. F. (1964). Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk," Journal of Finance, 19, 425-442.

Sharpe,W. F. (1970). Portfolio Theory and Capital Markets. New York: McGraw-Hill.

Shefrina, H. (2008). RISK AND RETURN IN BEHAVIORAL SDF-BASED ASSET PRICING MODELS. JOURNAL OF INVESTMENT MANAGEMENT, 6, 3, 1–18.

Sheifer, A. (2000). Inefficient markets: as introduction to behavioral finance. New York: Oxford University Press.

Statman, Meir, Steven Thorley, and Keith Vorkink. (2006). Investor overconfidence and trading volume. Review of Financial Studies 19, 1531–1565.

Tannen D. (1992). "You just don't understand: women and men in conversation," London:Viargo

Taras, Kirkaman, and Steel. (2010).Examining the Impact of Culture's Consequences: A Three-Decade, Multilevel, Meta-Analytic Review of Hofstede's Cultural Value Dimensions. Journal of Applied Psychology, Vol. 95, No. 3, 405–439.0